

REMARKS

Claims 1, 2, 4, 5, 7-10, 12, and 26-28 remain in this application. Claims 3, 6, 11, 13-25, and 29 were cancelled in a previous amendment. By this amendment, claims 1, 4, 9 and 26 are currently amended. Claims 2, 7, 8, 10, 12, and 28 remain original and unamended. No new claims have been added.

1. Amendments to the Specification

The specification has been amended to add the patent numbers to the serial numbers in the specification. At the time that the present application was filed, the application numbers had not issued as U.S. Patents. The inventor Peter Tong of U.S. Patent Nos. 6,434,520, 6,498,921 and 6,501,937 is also an inventor of the pending patent application.

2. Response to Objections to the Claims

Claims 1 and 9 were objected to for informalities. Claims 1 and 9 have been amended as recommended by the Examiner. The applicant thanks for the Examiner for the suggested amendments.

3. Response to Claim Rejections Under 35 U.S.C. § 102

The Examiner has rejected claims 1, 2, 4, 9 and 10 under 35 U.S.C. 102(e) as being anticipated by Kanevsky et al. (U.S. Pat. 6,434,520). The applicant has amended the claims to more clearly differentiate the pending claims from Kanevsky. Claims 1 has been amended to add the limitation that the categorizer is configured to store data items in a database organized by

categories and subcategories. The categorizer is described at paragraph 36 of the application and U.S. Patent No. 6,571,240. The linking of categories functions is used to resolve ambiguities in a user's request for information. In the application specification, the user identifies a first category "new information into the address book" and then inputs a name and phone number which are subcategories of the address book category. The application includes the example of an ambiguous phone number information request. The phone numbers are a first category of information and the entities having phone numbers are the subcategories. In the example there is an ambiguity regarding which Joe is being requested, "Joe Smith" or "Joe Winter." The system refers to each of the subcategories that include the Joe request and asks the user for clarification. The user then selects the desired Joe to resolve the ambiguity.

The '240 patent discloses additional details of the database configured with different categories and sub categories organized in a hierarchical structure. The '240 patent discloses several examples of the hierarchical database structure. A city can be a category and the points of interest within the city can be the subcategories. Similarly, Bay Area Cities can be a category with San Francisco, Oakland and San Jose as subcategories. (The '240 patent, Column 2, lines 49-58 and Column 9, lines 11-61.)

The claims have also been amended to clarify how ambiguous information is processed in a manner that takes advantage of the hierarchical database structure. All claims include the limitation that if there is ambiguity with the mode of information to extract from a first category of information, the natural-language processor provides the user with a plurality of alternative choices and the processor provides a second response based upon the user's selection from the plurality of choices. This limitation is supported by U.S. Patent No. 6,498,921 at Column 2,

lines 9-31 and Column 9, lines 21-35 which was incorporated by reference. Because the subcategories are linked to the primary category, there is always a relationship between the alternative choices.

In contrast to a database having categories of information linked together in a hierarchical structure, the Kanevsky patent discloses an audio indexing system that includes a database that stores segmented audio data. The data includes speaker identity tags, environment/channel tags and corresponding transcription. Kanevsky also discloses that that the audio segments may be indexed based on the textual content and/or the topic/issue of the segment. After the audio files have been indexed and stored in the database, the user can search the stored audio files and data streams based upon the tags and transcriptions. (Kanevsky, Column 7, lines 21 - Column 9, line 3, Figures 2A, 2B and 3.) Kanevsky does not disclose or suggest a database having a hierarchical configuration.

There are substantial differences between the indexing system of Kanevsky and the claimed category/subcategory system. The subcategory data are subsets of the data in the main category. Thus, the information in the hierarchical database is organized so that information related to one category can be found quickly by searching through the subcategories files. This hierarchical database structure improves the efficiency in finding stored information.

The claims also include the limitation that if there is ambiguity with the mode of information to extract from a first category of information, the natural-language processor provides a first response to the user having a plurality of choices, the natural-language processor then provides a second response based upon the user's selection from the plurality of choices.

Kanevsky does not disclose or suggest providing the user with a first response having a plurality of alternative choices or providing a second response based upon the user's option selection.

Claim 4 was amended to remove the limitation that the processor can still extract the piece of information even if the expression is ambiguous. This amendment was made because claim 1 now includes limitations regarding dealing with ambiguities in the extracted information.

Claims 2, 4, 9 and 10 depend from claim 1. For the same reasons discussed with reference to claim 1, Kanevsky does not disclose or suggest all of the limitations of claims 2, 4, 9 and 10.

4. Response to Claim Rejections Under 35 U.S.C § 103

Claims 1, 2, 4, 5, 7-10 and 26-28 were rejected under 35 U.S.C § 103(a) as being unpatentable over Sasai in view of Alpdemir.

As discussed above with respect to Kanevsky, claim 1 and dependent claims include the limitations that the categorizer is configured to store data items in a database organized by categories and subcategories and if there is ambiguity with the mode of information to extract from a first category of information, the natural-language processor provides a first response to the user having a plurality of choices, the natural-language processor then provides a second response based upon the user's selection from the plurality of choices. Claim 26 has also been amended to include these new limitations. Claims 27 and 28 depend from claim 26.

The limitations that the handheld personal assistant comprises a categorizer configured to store data in a database organized by categories and linked subcategories are supported by U.S.

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PATENT

Patent No. 6,571,240 at Column 2, lines 49-58 and Column 9, lines 11-61. U.S. Patent No. 6,571,240 was incorporated by reference into the present application and has the same assignee as the present application.

Claims 1 and 28 were also amended to add the limitation that if there is ambiguity with the mode of information to extract from a first category of information, the natural-language processor provides a first response to the user having a plurality of choices, the natural-language processor then provides a second response based upon the user's selection from the plurality of choices. These limitations are supported by U.S. Patent No. 6,498,921 at Column 2, lines 9-31 and Column 9, lines 21-35. U.S. Patent No. 6,498,921 also has the same assignee as the present invention and is also incorporated by reference. The applicant respectfully submits that this interactive system to refine the data request is not disclosed or suggested by Sasai or Alpdcmir.

Applicant respectfully requests that the above described amendments be made part of the official record in the present application, and respectfully submit that support for the claim amendments and is present in the specification, claims, and drawings as originally filed, and that no new matter has been added.

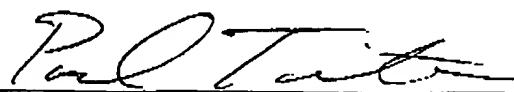
If there are any shortages, the Examiner is authorized to charge our Deposit Account Number 04-0822.

Respectfully submitted,

DERGOSITS & NOAH LLP

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